



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/893,974	06/29/2001	Jae Hong Jun	8733.470.00	6144

30827 7590 09/30/2003

MCKENNA LONG & ALDRIDGE LLP
1900 K STREET, NW
WASHINGTON, DC 20006

EXAMINER

NGO, HUYEN LE

ART UNIT	PAPER NUMBER
----------	--------------

2871

DATE MAILED: 09/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/893,974	JUN ET AL.	
	Examiner	Art Unit	
	Julie-Huyen L. Ngo	2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☒ Claim(s) 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 June 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. | 6) <input type="checkbox"/> Other: _____. |

DETAILED ACTION

Drawings

Figure 6 is objected to as failing to comply with 37 CFR 1.84(p)(5) because it include the reference sign "16", which was not mentioned in the description.

A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

Claim 10 is objected to because it appears that the term *__display__* shall be inserted in front of "area".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-8,11-20 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Matsuoka et al. (US5953094A).

Since the method claims are just the steps of forming the elements of a device, the method claims would have been obvious in view of the device. Therefore, the method claims are treated below along with the corresponding device claims.

Matsuoka et al. teach (Fig. 7B) a liquid crystal display panel comprising:
(Claims 1, 3, 4, 11 and 14)

- a first transparent glass substrate 11 having a display/array area and a groove around said display/array area;
- a first patterned material 15 on said first substrate, said pattern material having said groove;
- a second transparent glass substrate 12 having a ridge 21 that extends into the groove;
- said second substrate adjacent said first substrate;
- a liquid crystal layer 13 interposed between the first and second substrates,
- a seal 19 between the first and second substrates (claim 2).

Wherein

- said liquid crystal is over the display area.
- the groove is formed in a patterned material (claims 5 and 15), which is formed of (acrylic resin) an organic compound or of a photoresist (claims 6, 16 and 17)
- the ridge is formed in a patterned material (claims 7 and 18), which is formed of (resin) an organic compound or of a photoresist (claims 8, 19 and 20)

- the first substrate is bonded to the second substrate by pressing the first substrate and the second substrate together (claim 23)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 24-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuoka et al. (US5953094A) in view of Oh-kyong Kwon (US6486930B1).

Matsuoka et al. disclose (Fig. 7B) a liquid crystal display panel comprising all limitations recited in claims 24-28 except color filters formed on the second substrate.

It is well known in the art for a liquid crystal display panel (fig. 1 of US6486930B1) to have color filters forming on a substrate for displaying colors.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further forming color filters on the second substrate of Matsuoka et al liquid crystal display panel for displaying colors, as taught by Oh-kyong Kwon.

Claims 9-10 and 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuoka et al. (US5953094A) as applied to claims 1 and 14 above,

and further in view of Fujioka et al. (US 6552764 B2) and Oh-kyong Kwon (US6486930B1).

It is well known in the art for a liquid crystal display panel (fig. 1 of US6486930B1) to comprise a second substrate that includes a black matrix black matrix layers 4 formed between the color filters for blocking light transmitted to regions other than the pixel region 2a (claims 9, 21 and 22).

It is well known in the art for a liquid crystal display panel to comprise a thin film transistor array in a display area as shown in (Fig. 2b of US6552764B2) as switching elements for controlling the electro-optical characteristics of the liquid crystal (claim 10).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify that a liquid crystal display panel as Matsuoka et al. disclosed with (a) the second substrate including a black matrix formed between color filters for blocking light transmitted to regions other than the pixel region; (b) the display area including a thin film transistor array as switching elements for controlling the electro-optical characteristics of the liquid crystal 13.

Response to Arguments

Applicant's arguments filed August 20, 2003 have been fully considered but they are not persuasive.

Applicant's ONLY arguments:

1) None of the cited references, including Matsuoka, Fujioka, and Oh-kyong Kwon, singly or in combination, teaches or suggests at least the features of the claim

Art Unit: 2871

invention, for example, "a first substrate having a groove around a display area; a second substrate having a ridge that extends into the groove."

2) The structure of the present invention is different from the Matsuoka structure in that the present invention relates to a structure for capturing liquid crystal runoff during the manufacturing process, whereas Matsuoka relates to preventing corrosion of wiring around a substrate.

Examiner's responses to Applicants' ONLY argument:

1) Applicant is to note that Matsuoka et al. disclose (Fig. 7B) a liquid crystal display panel comprising the first substrate 11 having a groove around a display area; a second substrate 12 having a ridge 21 that extends into the groove.

2) Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references. Further more, the fact that Applicant has recognized another advantage cannot be the basis for patentability when there is no difference in the structure of the present invention and in that of Matsuoka.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Julie-Huyen L. Ngo whose telephone number is (703) 305-3508. The Examiner can normally be reached on T-Friday.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's Supervisor, Mr. Robert H. Kim can be reached at (703) 305-3492.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

September 16, 2003


Julie-Huyen L. Ngo
Patent Examiner
Art Unit 2871